

December 19, 1995

Mr. Louis Mikolajczyk  
New Jersey Department of Environmental Protection  
Bureau of New Source Review  
CN 027  
Trenton, New Jersey 08625-0027

**SUBJ: APC PLANT ID 01418**  
1990 Application Log No. 01-90-3837  
Certificate Number 104808  
Hexcel Corporation  
Lodi, New Jersey  
GEO File No. 94039.00

NJDEP  
INDUSTRIAL SITE  
EVALUATION ELEMENT  
CN028  
TRENTON, NJ. 08625

Dear Mr. Mikolajczyk:

DEC 20 1995

By way of this letter, GEO Engineering (GEO), as consultant to Hexcel Corporation (Hexcel), requests a modification to the subject Certificate to Operate Control Apparatus or Equipment (Certificate). Prior to completion of the modification application, we also request a meeting with the New Jersey Department of Environmental Protection (NJDEP) to discuss a change to the mode of operation of the water treatment equipment for which the Certificate is issued.

**Background**

The former Hexcel site in Lodi, New Jersey is subject to the Industrial Site Recovery Act (ISRA). The sale of the site in 1986 triggered the Environmental Cleanup Responsibility Act, the predecessor to ISRA. The ISRA Case number is 86-009.

Ground water contamination has been identified in the monitoring wells installed as part of the ISRA-required investigation. Ground water has been found to contain chlorinated organic compounds. Floating and sinking organic substances have also been found as separate phases in one or more of the monitoring wells.

Hexcel's remediation plan, approved by the NJDEP, includes pumping of ground water from a recovery system and treatment of the pumped water. A ground water recovery system has been installed but has not been operated. Water treatment equipment exists and has operated, to date, on only a small stream (water from the basement of the building in which the equipment is housed to prevent flooding). The equipment consists of water storage tanks (untreated, treated, and sludge), water pretreatment tanks (solids

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removal), air strippers, activated carbon to polish the water after air stripping, and catalytic oxidation to treat the off gas from the air strippers.

Hexcel applied for and was granted a permit to Construct, Install or Alter Control Apparatus or Equipment (Permit) in 1990. The NJDEP issued the subject Certificate as part of the Permit. The subject Certificate is temporary and has been reissued on a 90 day extension basis since its original issue.

### **Mode of Operation of Equipment**

We anticipate the mode of operation of the water treatment equipment must be changed in the near future. Currently, water removed from the basement of the building in which the equipment is located is treated approximately once a month. This operation results in approximately 2,500 to 3,000 gallons of water being treated each month. We expect additional water sources to soon generate additional water. Expected sources include water from a test to determine aquifer characteristics and water from ground water recovery wells. These additional sources will require operation of the system on a more frequent basis than once per month.

At this time, we do not know the anticipated flow rate from these additional water sources. The purpose of the proposed pilot test is to evaluate the aquifer characteristics and to allow us to estimate the required flow rate to achieve hydraulic control over the contaminated ground water. At the time of the Permit application submittal (May 1990), Hexcel estimated the ground water recovery system would generate approximately 6,000 gallons per day. We want to obtain verification of or define a better estimate for this quantity.

We anticipate future operations may include a daily operation. Recently a connection to the Lodi sewer system for the discharge from the treatment system has been completed. The treatment system has not been connected to this discharge yet, pending approval from Passaic Valley Sewerage Commission (PVSC). Once approved by PVSC, the system could be operated on a daily basis assuming no other constraints on the operation.

### **Permit Modification**

In order to operate the system efficiently and remove sufficient quantity of ground water to achieve hydraulic control, we believe a modification to the existing permit conditions will be necessary. Because we do not yet know the flow rate from the ground water recovery system, we cannot fully define the modification at this time. We anticipate, at this time, the ground-water recovery system will operate continuously and the water-treatment system will operate only on a batch basis (likely 8 hours per day) at a sufficient flow rate to treat all of the accumulated water in the storage tank.

In addition, a modification or a temporary waiver of permit conditions is requested to perform the testing to evaluate aquifer characteristics in an economical manner. We want to operate the treatment system to treat the water generated during the test. We do not anticipate performing the test until approval for the final sewer connection is received from PVSC so the treated water may be discharged to the sewer. The flow rate during the test is not defined and may be variable. The duration of the system operation during the test should be short, anticipated to be less than one month.

The concentration of organic compounds fed to the treatment system may be considerably lower than estimated at the time of the permit application allowing a higher flow rate with similar calculated risk. The most recent ground-water quality data are from 1993. By following a similar procedure to the one used in 1990, using the 1993 data set and the anticipated ground-water recovery system (seven wells), to calculate an estimated feed concentration, we estimate the concentration in the treatment system feed (Table 1) to be considerably lower in 1995 than was calculated in 1990<sup>1</sup>. Following the risk assessment protocol established by the NJDEP (*Risk Assessment Protocol*; Technical Manual 1003), we calculate the associated risk with an 8-hour/day operation to be acceptable.

TABLE 1: COMPARISON OF 1990 AND 1995 ESTIMATED TREATMENT SYSTEM FEED CONCENTRATIONS ( $\mu\text{g/L}$ )

COMPOUND	1990	1995
BENZENE	3544	605
CARBON TETRACHLORIDE	2689	5
1,2 DICHLOROETHANE	2771	165
METHYLENE CHLORIDE	253726	65602
TETRACHLOROETHENE	45583	6739
TRICHLOROETHENE	83137	11079
VINYL CHLORIDE	5320	605
1,1 DICHLOROETHENE	2813	5
CHLOROFORM	2558	5
STYRENE	120	5

<sup>1</sup> The 1990 data set was estimated using conservative assumptions of water quality for all 22 recovery wells in the ground water recovery system. GEO generated the 1995 data set using actual 1993 water quality data for the seven wells currently equipped with withdrawal pumps. The 1993 water quality used to calculate the 1995 data set shows lower concentrations compared to the water quality estimates used for the 1990 calculated feed concentration.

Table 1 includes the 1990 and 1995 estimated concentrations for the volatile organic compounds found at the former Hexcel site and included in the *Risk Assessment Protocol*. These concentrations represent an estimate of the feed quality at the time of startup for the ground water recovery system; these concentrations may vary as a function of time. We set concentrations for compounds not detected in the seven recovery wells in 1993 at 5 µg/L. Polychlorinated biphenyls (PCBs) were detected in one or more of these wells but not included in the table because we do not anticipate them to be removed in the air stripper and, therefore, will not be an air emission.

Please contact either Ms Marjorie Piette (Project Manager at GEO; 201-361-3600) or Mr. Jeffrey Duncan (GEO) to set up a meeting to discuss these issues. You may want to talk to Mr. Joe Nowak (Industrial Site Evaluation Element); we will contact him once a meeting schedule has been set because we believe his attendance would be useful also. You may contact Jeff Duncan if you have any questions about information in this letter and want to discuss them prior to a meeting.

Sincerely,

GEO ENGINEERING, INC.



Jeffrey L. Duncan, P.E.  
Senior Engineer



Marjorie A. Piette  
Project Manager

JLD/MAP/III

cc: Mr. A. W. Nosil (Hexcel)  
Mr. Joe Nowak (NJDEP)  
Ms. Lisa Bromberg (Porzio, Bromberg & Newman)